

CLAIMS

1. A plastic ferrule for an optical fiber cable, comprising:  
a substantially cylindrical main body made of molded plastic material;  
5 a core wire receiving bore formed axially centrally in a front end portion of  
said ferrule main body;  
a sheath receiving bore formed axially centrally in a rear end portion of said  
ferrule main body in axial alignment with and in communication with said core wire  
receiving bore, said core wire receiving bore having a smaller inner diameter than said  
10 sheath receiving bore;  
a flange portion extending radially and integrally from an axially intermediate  
part of said ferrule main body; and  
an insert pipe fitted on said front end portion of said ferrule main body;  
said insert pipe being provided with a coaxial small-diameter tubular portion in  
15 a front end thereof so as to form a thin-walled plastic portion between an inner  
circumferential surface of said small-diameter tubular portion and said core wire  
receiving bore.
2. A plastic ferrule according to claim 1, wherein said small-diameter tubular  
20 portion is formed by drawing a front end portion of said insert pipe.
3. A plastic ferrule according to claim 1, wherein said small-diameter tubular  
portion is formed by machining an outer circumference of a front end portion of said  
insert pipe.

4. A plastic ferrule according to claim 1, wherein said small-diameter tubular portion is formed by folding a front end of said insert pipe coaxially inward.

5. A plastic ferrule according to claim 1, wherein said insert pipe includes an outer pipe portion and an inner pipe portion received in said outer pipe portion, and said small-diameter tubular portion is formed by a front end portion of said inner pipe portion projecting from a front end of said outer pipe portion.

6. A plastic ferrule according to claim 5, wherein said outer and inner pipe portions are closely fitted one in the other.

7. A plastic ferrule according to claim 5, wherein a base end of said inner pipe portion is closely fitted in said outer pipe portion and a front end of said inner pipe portion is spaced radially from said outer pipe portion.

8. A plastic ferrule according to claim 5, wherein said inner pipe portion extends substantially over an entire length of said ferrule main body, and defines an inner circumferential surface of said sheath receiving bore of the ferrule main body while said outer pipe portion defines an outer circumferential surface of said front end of said ferrule.

9. A plastic ferrule according to claim 1, wherein a front end of said small-diameter tubular portion terminates short of a front end surface of said ferrule main body, and said ferrule main body comprises a plastic reservoir formed around the front end of said small diameter tubular portion.

10. A plastic ferrule according to claim 1, wherein a base end of said insert pipe partly overlaps said flange portion.

5 11. A method for molding a plastic ferrule for an optical fiber cable according to claim 1, comprising the steps of:

preparing a die assembly defining a substantially cylindrical cavity therein for molding said ferrule main body;

10 placing a first core pin for defining said core wire receiving bore axially centrally in a first axial end of said cavity corresponding to the front end of said ferrule main body and a second core pin for defining said sheath receiving bore axially centrally in a second axial end of said cavity corresponding to the rear end of said ferrule main body, both in a retractable manner;

15 placing an insert pipe coaxially adjacent to said first axial end of said cavity, said insert pipe including a small-diameter portion in an axial front end thereof; and injecting plastic material into said cavity from a gate provided in an axially intermediate part of said cavity.

12. A method according to claim 11, wherein said die assembly comprises a sprue and a passage communicating between said sprue and said cavity, said passage including an annular section coaxially surrounding a part of said cavity corresponding to said flange portion of said ferrule main body and a plurality of discrete passages extending radially between said annular section and said cavity part corresponding to said flange portion at a circumferentially regular interval.

13. A method according to claim 11, wherein said die assembly comprises a sprue and a passage communicating between said sprue and said cavity, said passage including an annular section coaxially surrounding a part of said cavity corresponding to said flange portion of said ferrule main body and a disk-shaped passage extending
- 5 radially between said annular section and said cavity part corresponding to said flange portion.

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